I CLAIM:

1. Apparatus for removing and controlling microbial contamination in dental unit water, comprising:

a source of water;

an electrolytic subsystem located between the source and a dental unti that continuously treats all the water from the source before the water enters the dental unit; whereby the subsystem does not segregate the analyte from the catholyte, does not require a separate source of salt or brine, and generates hypochlorite and other active halide compounds from salt naturally present in the water.

2. The apparatus of claim 1 wherein the electrolytic subsystem is formed as an electrolytic cell that can be located in-line between the source of water and the dental unit.